

Notice of Allowability

Application No.

10/757,624

Examiner

Hope A. Robinson

Applicant(s)

STUBBS ET AL.

Art Unit

1656

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6/24/05.
2. ☒ The allowed claim(s) is/are 1-6,8,9 and 25.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

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EXAMINER'S AMENDMENT

1. An Examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
2. Authorization of this Examiner's amendment was given in a telephone interview with Mr. Yonggang Ji on September 15, 2005 and September 16, 2005.
3. The Claims have been amended as follows:
Please cancel claims 7, 10 and 19-24 without prejudice.

Claim 1 (Currently Amended) A modified [[fluorescent protein which is derived from]] Green Fluorescent Protein (GFP) [[and has an amino acid sequence of wild type Green Fluorescent Protein having the sequence of SEQ ID NO:2, said modified fluorescent protein]] having the amino acid sequence of SEQ ID NO:2 except for:

- i) an amino acid substitution at position F64;
- ii) a single amino acid substitution at a position selected from the group consisting of positions S65 and E222; and
- iii) an amino acid substitution at position S175;

wherein said modified GFP has a different excitation spectrum or a different emission spectrum compared with wild type GFP or has a different excitation spectrum and a different emission

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spectrum compared with wild type GFP.

Claim 2 (Currently Amended) The modified GFP [[fluorescent protein]] of claim 1, wherein the amino acid Phe at position 64 has been substituted by an amino acid selected from the group consisting of Leu, Ile, Val, Ala and Gly.

Claim 3 (Currently Amended) The modified GFP [[fluorescent protein]] of claim 1, wherein the amino acid Ser at position 175 has been substituted by an amino acid selected from the group consisting of Gly, Ala, Leu, Ile, and Thr.

Claim 4 (Currently Amended) The modified GFP [[fluorescent protein]] of claim 1, wherein the amino acid Ser at position 65 has been substituted by an amino acid selected from the group consisting of Gly, Ala, Cys, Val, Ile, and Thr.

Claim 5 (Currently Amended) The modified GFP [[fluorescent protein]] of claim 1, wherein the amino acid Glu at position 222 has been substituted by an amino acid selected from the group consisting of Gly, Ala, Val, Leu, Ile, Phe, Ser, Thr, Asn and Gln.

Claim 6 (Currently Amended) The modified GFP [[fluorescent protein]] of claim 1, selected from F64L-S175G-E222G-GFP and F64L-S65T-S175G-GFP.

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Claim 8 (Currently Amended) A modified [[fluorescent protein derived from]] Green Fluorescent Protein (GFP) [[and having an amino acid sequence which is modified by amino acid substitution compared with the amino acid sequence of wild type Green Fluorescent Protein, said protein having the amino acid sequence as set forth in SEQ ID NO:3]] having the amino acid sequence of SEQ ID NO:3 except for:

- i) an amino acid substitution at position F64L;
- ii) an amino acid substitution at position E222G; and
- iii) an amino acid substitution at position S175G;

wherein said modified GFP has a different excitation spectrum or a different emission spectrum compared with wild type GFP or has a different excitation spectrum and a different emission spectrum compared with wild type GFP.

Claim 9 (Currently Amended) A modified [[fluorescent protein derived from]] Green Fluorescent Protein (GFP) [[and having an amino acid sequence which is modified by amino acid substitution compared with the amino acid sequence of wild type Green Fluorescent Protein said, protein having the amino acid sequence as set forth in SEQ ID NO:4]] having the amino acid sequence of SEQ ID NO:4 except for:

- i) an amino acid substitution at position F64L;
- ii) an amino acid substitution at position S65T; and
- iii) an amino acid substitution at position S175G;

wherein said modified GFP has a different excitation spectrum or a different emission spectrum compared with wild type GFP or has a different excitation spectrum and a different emission

spectrum compared with wild type GFP.

Claim 25 (Currently Amended) A fusion protein comprising a protein of interest fused to the modified GFP [[fluorescent protein]] of claim 1.

4. The Specification have been amended as follows:

Please replace the paragraph that appears on page 1, line 1 with the following paragraph:

The present application is a divisional of U.S. Patent Application No. 09/967,301 filed September 28, 2001, now U.S. Patent No. 6,919,186, which claims priority to Application No. GB 0109858.1 filed on April 23, 2001, the entire disclosures of which are hereby incorporated by reference.

EXAMINER'S COMMENTS

5. Upon due reconsideration claim 25 directed to a fusion protein has been rejoined and is herein allowed, therefore, the Restriction Requirement mailed on December 3, 2004 is withdrawn in part.

6. The amendment filed on June 24, 2005 has been received and entered.

(a) The objections to the specification and claims have been withdrawn by virtue of applicant filing a response that amended the specification to properly cite trademarks and the claims to recite the article "A" instead of "The". Further, the amendment herein obviates the objection of the priority information in the instant specification.

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(b) The rejection under 35 U.S.C. 101 has been withdrawn by virtue of the amendment filed and the amendment above to recite "A modified GFP".

(c) The rejection under 35 U.S.C. 112, first paragraph, written description has been withdrawn by virtue of amendments filed to remove "analogue" language and the amendments above.

(d) The rejection under 35 U.S.C. 102(e) has been withdrawn by virtue of applicant's arguments presented on page 15-16 of the amendment filed on June 24, 2005.

7. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hope A. Robinson whose telephone number is 571-272-0957. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathleen Kerr, can be reached at (571) 272-0931. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hope Robinson, MS *HR*

Patent Examiner

9/16/05



**KATHLEEN M. KERR, PH.D.
SUPERVISORY PATENT EXAMINER**